DIAGNOSTICS, TELEMATICS & TOOLS

altest TELEMATICS

CATALOGUE





JALTEST TELEMATICS TECHNOLOGICAL SOLUTIONS FOR EFFICIENT AND SUSTAINABLE FLEETS









Jaltest Telematics defines a new concept in the industry by incorporating multi-brand and multi-system remote diagnostics obtained directly from the vehicles. The Jaltest Telematics platform is totally aimed at the optimisation of fleet efficiency, by reducing the number of breakdowns, optimising times, measuring the main KPIs that facilitate the decision-making and providing the necessary information to the users in each role.

Besides, it introduces the possibility of performing predictive maintenance tasks that enable the detection and avoidance of breakdowns before happening.

If these incidents take place on route, it will allow repairs in real time or guide the vehicle to the closest workshop connected to the network of Jaltest.

























SOLUTIONS ADAPTED TO EACH SEGMENT AND COVERAGE FOR A WIDE RANGE OF MULTI-BRAND VEHICLES





































MORE THAN TELEMATICS

These are some of the functionalities that make Jaltest Telematics one of the most complete fleet management tools of the market.

- 1. Location
- 2. Diagnostics
- 3. Predictive
- 4. Tachograph
- 5. Alarms
- 6. Reports
- 7. Maintenance
- 8. Notifications to the workshop
- 9. Orders
- 10. Messages
- 11. Fuel
- 12. My Fleet
- 13. Cold chain

Jaltest Telematics provides access to all the information in real time, which implies an additional added value to obtain a more intelligent, efficient, sustainable, safe and cost-effective fleet.





High added-value services















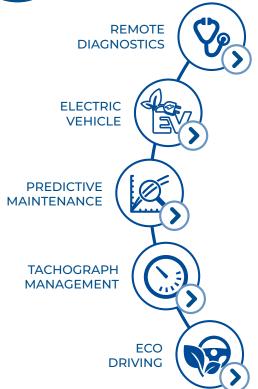








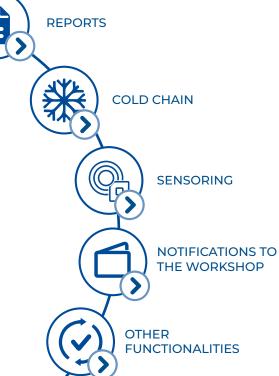
SOFTWARE





JALTEST TELEMATICS

Through the Jaltest Telematics platform, real-time information can be displayed at any time, anywhere and from any PC or mobile device, since the system is in the cloud. Through a user-friendly application, any driver, technician, fleet manager or client will be able to access these data and interact with them.



























PREDICTIVE MAINTENANCE:

- · Estimation of the useful life time of a system, a component or set of components, based on the information record of the vehicle.
- · Possibility of setting windows for each maintenance action and preventing possible breakdowns.

REPORTS:

- · Activity analysis.
- · Tachograph.
- · Performance analysis.
- · Fault code reading.
- · Alarms
- · FBS trailer
- · General.

ORDER MANAGEMENT:

- · Shipment tracking.
- · Real-time tracking.
- · Chat with the driver.
- · History of changes.

MESSAGING:

- · Communication service.
- · Custom sending of planned reports.

LOCATION:

- · Current position.
- · History.
- · Current state.
- · Nearest vehicle
- · Crossing points.
- · My places.
- · Routes.

(X) TACHOGRAPH:

- · Download history.
- · Download request.
- · Tachograph download planner.
- · Planned download summary.
- · Company cards.

MAINTENANCE:

- · Maintenance task management.
- · Maintenance logbook.
- · Maintenance management through workshop notifications.
- · Maintenance alerts.

■ fuel:

- · New refuelling.
- · Refuelling history.

GEO BOX:

· Container location without GPS through mobile application.

P DIAGNOSTICS:

- · Vehicle status.
- · Advanced diagnostics.
- · Brake status.
- Instrumentation status
- · Customisation.

(i) ALARMS:

- Location
- · Distance travelled
- · Time intervals.
- · Overspeeding.
- · Diagnostics.
- · Pending downloads of tachograph/driver cards.

MOTIFICATIONS TO THE WORKSHOP:

- · Repair management.
- · Maintenance management.
- · Possibility of remote diagnostics.
- · Possibility of having a workshop network.



· Integrated ERP module to collect data of companies and freelancers subcontracted by the company.

























REMOTE DIAGNOSTICS

UNIQUE SOLUTION IN THE MARKET

Jaltest Telematics is the only solution with MULTI-BRAND remote diagnostics in the market. This functionality is the gate to a new concept oriented towards the repair and prevention of major breakdowns, where any user related to the repair and examination of a vehicle can make decisions when detecting any fault or even assess indicators of potential future breakdowns.

VEHICLE STATUS

Jaltest Telematics allows real-time connection with drivers and vehicles, which makes it possible to plan and improve technical service processes. Jaltest Telematics allows remote access to ECU units and FMS systems of any vehicle. Through the system, the manager can handle data and ratios over several variables, send repair notifications and even perform diagnostics processes. Besides, it enables the user to exploit predictive maintenance plans based on algorithms implemented by the manufacturer.



ADVANCED FUNCTIONALITIES

During these diagnostics processes, the platform makes it possible to easily identify the vehicles with detected faults and even perform processes such as:

- Remote clearance of non-critical fault codes of the vehicle, such as the anti-pollution system clearance.
- · Remote regeneration of the particulate filter.
- · Remote reset of electronic control units (ECU).

MULTI-BRAND AND MULTI-SYSTEM

Jaltest Telematics offers the possibility of performing diagnostics on any brand and system in the vehicle, selecting measurements (brake pad wear, temperature, voltage, pressure, engine rpm, etc.) and obtaining data from the ECU to ensure that the vehicle is capable of running for a whole working day in optimal conditions.























ELECTRIC VEHICLE

The electrification of transport is an increasingly common reality in urban and last-mile transport, with Low-Emission Zones already defined in big cities.

Jaltest Telematics responds to the great challenges of implementing this technology in fleets, such as fleet availability, safety and operation management —totally different from fleet management of heat engines. Problems such as early battery ageing, its low performance or events of thermal leakages or fires are very common, and require taking measures to anticipate and keep them under control. All of this with the limitations of an early-stage technology with lack of standardisation and valuable information, and where battery management systems (BMS) act as authentic black boxes.

In this context, Jaltest Telematics offers added value thanks to its advanced system monitoring by combining direct information from the electronic control units of the energy storage and management systems with all the information available in the CANBUS, which allows advanced and predictive analytics that are vital to ensure the fleet availability, reduce contingencies and optimise fleet operations as much as possible.























PREDICTIVE MAINTENANCE

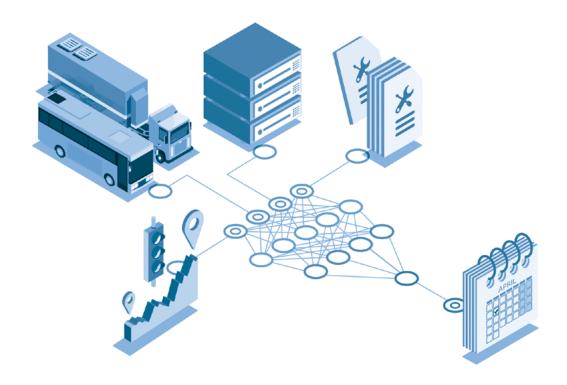
ARTIFICIAL INTELLIGENCE APPLIED TO FLEET MANAGEMENT

Jaltest Telematics applies disruptive technology as Artificial Intelligence and other proprietary protocols in order to analyse all information reported by the vehicle. Furthermore, it has developed machine learning systems that are trained in one of the most complete multi-brand and multi-system data collections in the world.

Thanks to these machine learning models, Jaltest Telematics is able to estimate the useful life time of a system or a component, based on the conditions of use and the maintenance operation history. This makes it possible to establish the windows for each maintenance action and be ahead of potential breakdowns.

- Optimisation of maintenance operations by making the most out of the useful life of components.
- Predicting breakdowns, reducing contingencies and road assistance and increasing safety.
- \cdot $\,$ Optimisation of resources, reducing downtime periods and the carbon footprint.

The main objective is to increase the vehicle availability —which might increase up to 42% according to Jaltest Telematics by means of alarms for predictive maintenance and remote diagnostics— as well as to reduce opportunity costs thanks to the identification of potential problems before happening and to the estimation of the next maintenance window depending on the remaining useful life of the components.























TACHOGRAPH MANAGEMENT

Jaltest Telematics allows the complete digitalisation of the tachograph management, with real-time information of the driver and a totally automatised management of file downloads. Besides, it offers a comprehensive hosting service of company cards to facilitate the whole management of the process.

Thanks to a wide range of activity reports —from the activity history to the current status of rest breaks, distance/times per country and productivity— with Jaltest Telematics it is possible to analyse in real time the drivers' activity as well as their productivity and to optimise the operation planning.

























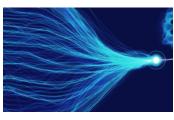
ECO DRIVING

The added value of Data Science applied to the fleet. Jaltest Telematics offers a new approach of efficient driving, building on all the information reported by the vehicle and exclusively related to the driver's performance. Our system is able to define the operating context of a particular fleet, by obtaining data for a minimum of three months to characterise routes and have a periodical assessment of the drivers with these data.

HOW DOES IT BENEFIT YOUR FLEET?

- Consumption reduction up to 10% in driving and 5% in planning operations by model/route.
- Driver's ranking based on performance.
- Route difficulty characterisation and impact on consumption.
- Driving assessment without route, load status or vehicle bias.
- Operation optimisation based on the data obtained.

HOW DOES JALTEST TELEMATICS ACHIEVE THOSE RESULTS?



DATA INTAKE

- More than 20 direct driving parameters.
- Maximum reading frequency.
- Effective driving time.



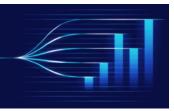
DATA IN CONTEXT

- On-board data processing in real time.
- Added variables.
- Acceleration-brake and brake-acceleration events.



ANALYTICS

- Multiple Machine Learning techniques.
- Detail analysis about weights, speeds, etc.
- Route characterisation.



INTELLIGENCE

- Operating context of the fleet.
- Driver ranking without vehicle or route bias.























REPORTS

Jaltest Telematics offers a comprehensive business intelligence solution based on a collection of reports that allow full coverage of the fleet activity by providing necessary and high-value information to facilitate fast and properly documented decision-making. These reports can be planned beforehand and exported both in Excel and PDF format. In this way, the system is in charge of generating and sending the required information automatically to each profile in the fleet. These are the available groups of reports:

- · ACTIVITY TABLE
- · PERFORMANCE ANALYSIS
- · DIAGNOSTICS
- · ALARMS
- · COLD CHAIN
- · EBS TRAILER
- · HITCHED TRAILERS
- · ELECTRIC VEHICLES
- · GENERAL

























THE COLD CHAIN OF JALTEST TELEMATICS

Jaltest Telematics enables the companies dedicated to the transport of refrigerated goods to meet the specific requirements for monitoring, handling and preserving the temperature during the route, ensuring that the applicable legislation and the Guide of Good Practices demanded by both the pharmaceutical and food industries are accomplished.

T-COLD

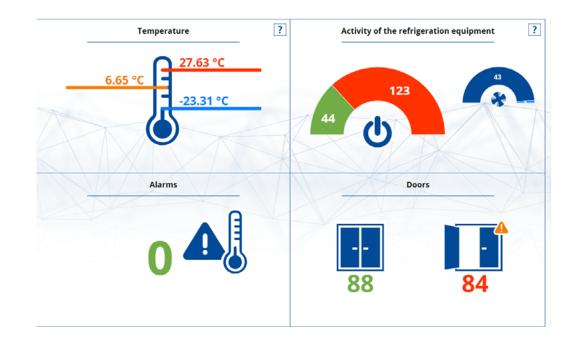
- T-COLD is a digital thermograph fully designed and manufactured by Cojali to monitor the cold chain in a fully digitalised way and which meets the maximum quality and certification standards.
- Thanks to T-COLD it is possible to easily manage the biennial certification processes without causing an impact on the operations and optimising costs.

CERTIFICATIONS

- UNE-EN 12830:2019
- F-Mark
- CF
- ITC 155/2020
- Welmec 7.2

THERMOGRAPH CONNECTION

Jaltest Telematics also offers a comprehensive solution for monitoring the cold chain regardless of the thermograph installed in the vehicle. Thanks to the wide possibilities for the integration of the on-board solution, either with T-VOD or with T-DOT, it is possible to connect to the thermographs of other manufacturers and keep total traceability of the cold chain. Not only is it possible to track temperatures, but also the status of doors and the cold unit engine, including its diagnostics status. Besides, Jaltest Telematics has adapted accessories that reduce the time invested during the installation and ensure the quality of the assembled for a proper monitoring of the cold chain.

























TRAILER ID

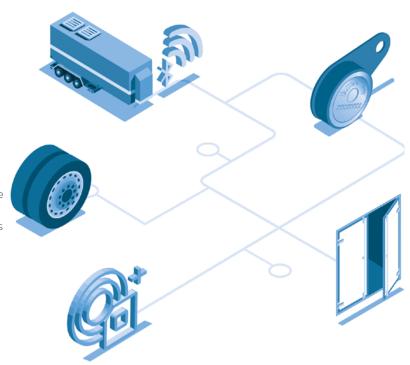
The Trailer ID functionality allows the identification of semi-trailers and links them automatically with a tractor head through a Bluetooth sensor located in the frontal part of the semi-trailer and without using a telematics unit.

TIRE TEMPERATURE AND PRESSURE CONTROL

Jaltest Telematics offers total monitoring of tyre temperature and pressure to extend their useful life, reduce fuel consumption and avoid undesired events such as burst tyres on the road

ADDITIONAL SENSORS

Jaltest Telematics can integrate new sensor families according to the user's needs.



DRIVER IDENTIFICATION IN VEHICLES WITHOUT TACHOGRAPH

Jaltest Telematics offers an ideal solution for the identification of drivers in vehicles without tachograph through a magnetic key associated to the driver and a reader device installed in the vehicle. This link between driver and vehicle makes it possible to benefit from an optimal performance of functionalities, such as the efficient driving reports and the driver ranking.

DOOR OPENING AND CLOSING

Thanks to door opening and closing sensors, Jaltest Telematics offers a safety component that is vital to detect and avoid unauthorised access.

This is an optimal solution to complement other purposes as well, such as cold chain management, monitoring opening times and optimising temperature regulation.























NOTIFICATIONS TO THE WORKSHOP

AGILITY AND REDUCTION OF REPAIR TIMES

- Module that allows the fleet manager to connect in a remote, fast and easy way
 with the closest workshop in the network, facilitating any management task that
 must be performed on route.
- Access to real-time information. Monitoring of the vehicle performance at any time.
- Fast troubleshooting. The workshop will be quickly aware of the type of problem and come up with an optimal solution for the client's fleet.
- Speeding up paperwork. Data are entered in the platform just once, therefore reducing the amount of paperwork and waiting time of clients at the workshop.
- On-cloud information. All the information will be accessible from any mobile device by using the cloud as storage, therefore facilitating repairs based on previous experience of the vehicle.
- · Predictive maintenance. Breakdowns can be detected before happening.
- Through the maintenance module it is possible to plan any required maintenance task and set a warning signal in case it is advisable to take the vehicle to the workshop.























OTHER FUNCTIONALITIES

Available apps for iOS and Android.



JALTEST TELEMATICS APP WITHOUT LOCATION ACTIVATED

Apart from accessing Jaltest Telematics portal with all the information available, the different roles can also:

- · Use the messaging option.
- · Show the driving times for drivers.
- · Synchronise tasks between drivers on the road and office personnel.
- · Monitor in real time tasks such as load, transport and download of goods/people.
- · Manage travel data remotely.
- Identify the driver in a vehicle without compatible tachograph. By accessing the app, it is possible to select the current vehicle and whether the driver is the main driver or the second driver.

JALTEST TELEMATICS APP WITH LOCATION ACTIVATED

Apart from the services already mentioned, it includes the activation of the location service through the device where the app is installed. The user can use the option to connect and disconnect the location sending.

MIRRORING

Jaltest Telematics offers the possibility of implementing devices that can feed different portals. In this way, the same device can send information temporarily or for an undefined period of time and let a third party display the client's vehicles, as well as to solve use cases that include complex user hierarchy, functionalities and accesses.

INTEGRATIONS THROUGH API

Jaltest Telematics allows the integration of CRM, ERP, transport management systems or the management of assets, costs or other specific applications of the industry: we make it easy for our clients to integrate services that are fundamental for their business.

Along with our technological partners, clients and their suppliers of software and hardware, we can provide integration tools that will help in different ways to improve the customer services and the response times, as well as to reduce operational and administrative costs.

DATA SCIENCE

Cojali builds on all the gained experience in more than 20 years of leadership in multi-brand diagnostics of commercial vehicles and all the information gathered in sessions of diagnostics, on-board telematics and technical support, to obtain the optimal performance of the data obtained from the vehicle and remote diagnostics.

Thanks to the application of advanced analytics and Artificial Intelligence models on the information compiled, it is possible to identify patterns and trends, as well as to extrapolate behaviours to move fast towards real predictive maintenance and without false alarms, therefore reducing downtime at the workshop and contingencies on the road.























BENEFITS OF JALTEST TELEMATICS



Obtaining KPIs allows the assessment of the economic impact for the client, derived from the investment in fuel, breakdown times, downtimes, etc.

2. DECISION-MAKING BASED ON DATA

Jaltest Telematics allows the monitoring, management and handling of all the information on the fleet status in real time, speeding up and optimising the decision-making.

3. EFFICIENCY INCREASE

Having all the data available turns Jaltest Telematics into the perfect tool to detect performance trends and levels. In this way, it is possible to act consequently to increase the efficiency of your fleet.

4. PREDICTIVE MAINTENANCE

It offers the possibility of detecting failures in advance, being one step ahead of incidents and consequent costs by having the vehicle in optimal conditions before going on route.

5 A MORE SUSTAINABLE AND ECO-ERIENDLY ELEFT



6 REDUCTION OF REPAIR TIMES

Through our solution Jaltest Telematics, our clients have access to the module for the workshop 4.0. This makes it possible not only to predict and prevent failures, but to solve them quickly, since the workshop can perform remote diagnostics on the vehicle and have the spare part or the tools ready for the repair by the time the vehicle arrives.

7. TCO REDUCTION

Our model unifies all the services required for fleet management, therefore helping companies to reduce direct and indirect costs related to the purchase of different software products.

8. QUALITY ASSURANCE

Hardware and software solution manufactured in-house, controlling the product life cycle and guaranteeing maximum quality standards.

9. SAFETY INCREASE

It increases the safety of the fleet by reducing contingencies on the road and vehicle unavailability, apart from monitoring driving assistance systems in real time.

























OTHER DEVICES

- Temperature/Temperature and humidity/ Temperature, humidity and Bluetooth light sensors
- · Cable temperature and humidity sensors
- · Inductive sensor
- · Door opening and closing sensor

- · Lighting sensor
- · i-Button
- · Trailer ID
- TPMS. Tyre pressure and temperature sensor



























Telematics Diagnostics Onboard Trailer. Telematics unit specially designed for trailers. It consists of a sealed unit (IP 67) equipped with diagnostics options on EBS and refrigeration systems. GSM/ GPRS. Bluetooth and CAN stand out among the connectivity options, including interfaces aimed at diagnostics through CAN, RS-232 and K line. It is also provided with an internal battery in order not to lose information and keep connection with the main server at all times









Telematics-Thermograph Solutions. Certified thermograph (UNE-EN 12830) of Jaltest Telematics in charge of measuring and recording the temperature in refrigerated vehicles that must prove the legal compliance of the cold chain.













Jaltest Telematics has developed air quality stations both for indoors and outdoors that allow the user to know in detail the environmental context inside the vehicle, and also to turn the vehicle itself into a mobile air quality station by reporting in real time the air quality state and the urban pollution for a correct monitoring of the air quality.







Telematics Vehicle Onboard Diagnostics. Combined telematics and diagnostics unit onboard for commercial vehicles, which allows you to locate and perform diagnostics sessions remotely. Connected to the diagnostics socket (OBD connector), the system can interact with the Control Units (ECU) present in the vehicle and request relevant data from different systems without going to the workshop.



















T-VOD Lite. Sealed telematics unit that locates. downloads tachograph files and provides information about the vehicle status with a simple installation and with maximum guarantees. GSM/ GPRS, Bluetooth and CAN stand out among the connectivity options. It has an antenna and an internal battery and it enables the configuration of analogue and/or digital inputs to control specific indicators.































CUSTOM HARDWARE AND SOFTWARE SOLUTIONS FOR EACH CLIENT























CONNECT SOLUTIONS

CONNECT SOLUTIONS

Jaltest Telematics fleet solutions aimed at all segments and business models, offering modular services such as: location, reports, remote diagnostics, remote tachograph download, maintenance or alarms, among other services.















Optional additional modules





































CONNECT LITE **SOLUTIONS**

CONNECT LITE SOLUTIONS

Jaltest Telematics fleet solutions aimed at all segments and business models, offering modular services such as: reports, remote diagnostics, connection to the cold equipment, remote tachograph download, maintenance or alarms, among other services. These are perfect to be integrated with location systems previously acquired and implemented in the client's company.





















































TRAILER CONNECT **SOLUTIONS**

TRAILER CONNECT SOLUTIONS

Jaltest Telematics trailer solutions including cold transport, offering modular services such as: location, reports, remote diagnostics, connection to the cold equipment, maintenance or alarms. among other addedvalue services. These are available both in connection mode (with location included) and in remote diagnostics mode (without location included).















Optional additional modules

































In Jaltest Telematics we develop ad-hoc project for OEMs and companies of the agricultural sector that require customised solutions adapted to their specific needs.

Our solutions, among other capacities, allow our clients through their adapted project to:

- 1. Know the essential information both from the machine and the task performed.
- 2. Perform remote diagnostics and measurement reading in the machinery in real time.
- 3. Design, plan and control agricultural seasons.
- 4. Perform a comprehensive agronomic management of the holding



























COST CONTROL

It allows the assessment of the economic impact for the client, derived from the investment in fuel, raw material, breakdown times, downtimes, etc.

PRECISION AGRICULTURE

Precise vehicle location. Possibility of integrating sensors for the study and evaluation of the field, crop control and other tasks.

✓ EFFICIENCY INCREASE

It provides all the data from the tractor and the implement directly and in real time, which turns the solutions of our clients into the perfect tools to detect performance trends and levels. In this way, it is possible to act consequently to increase the efficiency of the machinery.

COMPREHENSIVE SEASON PLANNING

Ad-hoc projects will allow, among others, the grouping of tasks by seasons depending on the activity, creating crop plans formed by different tasks, machinery, materials, fields, apart from the specific requirements of the project.

Based on other projects, we develop solutions to plan task management: Control of data generated by the task controller, including performance data, task management and prescription maps.



Staff control: Task management depending on its status (completed, in progress, stopped and planned) of each one of them, allowing better planning and control of the tasks to be performed and the personnel.



 Machinery and task management: Machinery control, including the complements and materials for a better task management, which can be associated to the different tasks having control at all times over the availability of each one of them.



Client, field and farm management: The implementation of telematics solutions could enable, among others, the addition of different clients and their connection to their respective fields or farms, defining their limits in an interactive map, and their storage to use them in a quick and easy way for future tasks.

DIAGNOSTICS

The platform makes it possible to differentiate the vehicles with detected fault codes and perform processes such as:

- · Fault code clearance.
- · Remote particulate filter regeneration.

REDUCTION OF REPAIR TIMES

Through our remote diagnostics solutions, our clients have access to the workshop module. Not only is it possible to prevent failures, but to solve them quickly thanks to proactive maintenance, which allows the workshop to perform remote diagnostics in the machinery, therefore to detect failures instantly. This makes it possible to prepare the part or the repair tools required in an efficient way, which results in saving time going to the country and having the agricultural machinery always in optimal conditions to go back to the country.

PREDICTIVE MAINTENANCE

Estimation of the useful life time of a system, a component or set of components, based on the information record of the vehicle

Possibility of creating windows for each maintenance action and preventing possible breakdowns























In Jaltest Telematics we develop ad-hoc project for OEMs and companies of the OHW sector that require customised solutions adapted to their specific needs.

Our solutions, among other capacities, allow our clients through the adapted project to:

- 1. Know the location of their assets and the tasks performed.
- 2. Control operations and perform tracking.
- 3. Manage the fleet based on real data in real time.
- 4. Perform remote diagnostics and measurement reading in the machinery.



































Q LOCATION

- Location of the machinery or tracking of the equipment travel for a specific time span.
- · Safety limit alarms, check of the equipment working area.

① TIMES

- · Downtime reduction.
- · Work time.
- · Use comparison between different equipment.

IN JALTEST TELEMATICS
WE DESIGN SPECIFIC PROJECTS
FOR ORIGINAL EQUIPMENT
MANUFACTURERS AND
COMPANIES WITH OHW FLEET



Control of the daily fuel consumption mode of the fleet or the work groups. Sending of fuel trucks when required.

PREDICTIVE MAINTENANCE

Estimation of the useful life time of a system, a component or set of components, based on the information record of the vehicle.

Possibility of creating windows for each maintenance action and preventing possible breakdowns.

REMOTE DIAGNOSTICS

Check of the machinery fault codes after its use. Machinery performance stop before a potential breakdown.

The platform makes it possible to differentiate the vehicles with detected fault codes and perform processes such as:

- · Fault code clearance.
- · Remote particulate filter regeneration.

✓ EFFICIENCY

Check of the workload and coordination of vehicles: It allows the connection between the different vehicles associated to a specific task and the check of the workload of each one of them when performing this task.

✓ FLEET STATUS VERIFICATION

- · Tracking of all the machinery from one single screen.
- Control of the engine speed rate and other essential parameters for a detailed monitoring of the machinery status.

■ MAINTENANCE

- · Creation and management of the workshop tasks.
- · Reception and management of work orders.
- · Predictive maintenance.























+500 WORKERS

135 **COUNTRIES**

> COJALI. **INTERNATIONAL PRESENCE**

Cojali is the Spanish multinational leader in the manufacture of cooling systems, brake and suspension systems, electronic and electrical components, multi-brand diagnostics and telematics for commercial vehicles, agricultural equipment, OHW equipment, material handling equipment and vessels.

Founded in 1991, Cojali is focused on research, development and innovation for commercial vehicles in the independent market, offering quality equivalent to the original equipment.



HEAD OFFICE



SPAIN



FRANCE



ITALY



USA





GERMANY



MEXICO





TURKEY

INDIA















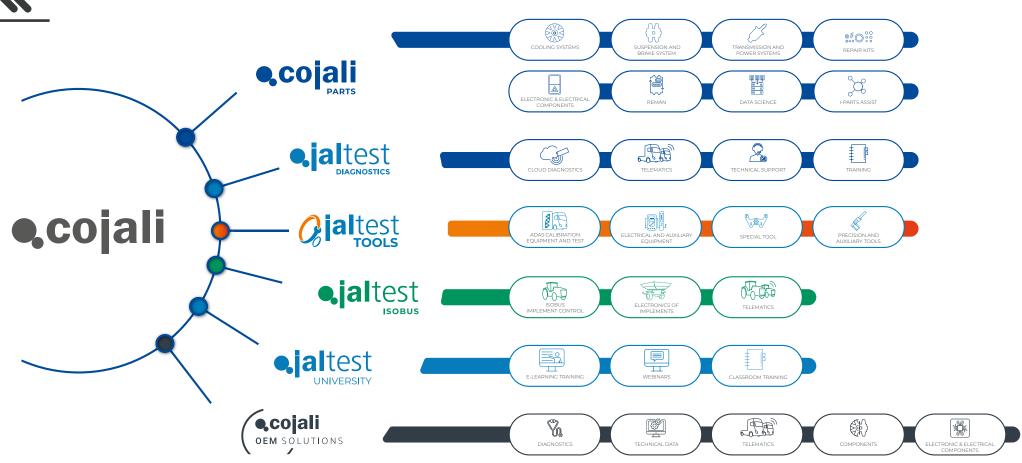






























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